



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,992	04/12/2004	Toshikazu Morisawa	008312-0309175	1575
909	7590	06/05/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			MURALIDAR, RICHARD V	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2838	

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,992

Applicant(s)

MORISAWA, TOSHIKAZU

Examiner

Richard V. Muralidar

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>04/12/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 1-10 are objected to for the use of non-standard language as it applies to the widely known art of load leveling and peak shifting of power consumption. Phrases like "whether there exists a plan", "a start point of a plan", "makes power management", "registering a period having a plan", and "a schedule note" etc. make the claims confusing and not easily recognizable as actually specifying a load leveling/peak shifting power device, or a device that belongs to that art. The claim language should preferably be concise and convey the pertinent information about the invention in as clear a manner as possible, both for the benefit of the patent protection the applicant is seeking, as well as for future patent database research. Appropriate correction is required.

Claims 1-10 are not clearly understandable for the following specific reasons:

Claim 1:

"...a power management section configured to make power management based on setting information..." seems to be saying that power management simply occurs, or a power management decision is made. This portion has been interpreted to mean a decision is made, and the prior art has been applied accordingly.

"...a state determining section configured to determine whether there exists a plan to use the electronic apparatus..." seems to be saying either there is simply an intention to use, or there could be a data table with state values. This portion has been

Art Unit: 2838

interpreted to mean a data table with state values, and the prior art has been applied accordingly.

“...to use the electronic apparatus by a battery drive...” Does this refer to a battery, or a battery charger, or both? This portion has been interpreted as simply a battery, and the prior art has been applied accordingly. The prior art discloses both battery and charger.

Claim 2:

“...calculates a charge time spent for charge from the maximum battery capacity and the battery capacity at a current time...” It is unclear exactly what this limitation means, but it has been interpreted to mean a determination of how much time is required to charge the battery to maximum capacity. The prior art has been applied accordingly.

Claim 3:

“...whether or not there exists a start point of a plan to use the electronic apparatus by the battery drive until the charge time elapses from the current time...” It is unclear exactly what this limitation means. It has been interpreted to be a requirement at a certain time to use the battery to power the electronic apparatus after the charging time has been completed. The prior art has been applied accordingly.

Claims 4 and 5:

“...configured to register a [charge request] period...” It is unclear exactly what this limitation means. It has been interpreted as memory processing of the period, whether to inhibit or battery charging. The prior art has been applied accordingly.

Claims 6-10 repeat the same problems of Claims 1-5. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hatori et al [U.S. 6885115].

With respect to Claim 1, Hatori discloses an electronic apparatus [Fig. 2, notebook pc 101], comprising: a power management section [Fig. 2, power supply system 102] configured to make power management [interpreted to mean a power management decision] based on setting information [Fig. 2, peak-shift period and time Data Base 106 contains load consumption information used to make power management decisions; col. 3 lines 44-51; col. 6 lines 25-41] on which at least an AC power inhibit period [Fig. 4, the “power of battery” period indicated from 13-16 hours is the AC power inhibit period; col. 2 lines 21-24; col. 3 lines 4-7; col. 9 lines 50-67] for inhibiting use of AC power is set; a state determining section [Fig. 2, controller 104; col. 7 lines 51-57; col. 8 lines 45-52] configured to determine whether there exists a

Art Unit: 2838

plan [interpreted to mean a data table with state values, which is stored in Fig. 2, peak shift period and time Data Base 106] to use the electronic apparatus by a battery drive [interpreted as simply a battery, Fig. 2, built-in battery 103] when the electronic apparatus is connected with the AC power [Fig. 2, controller 104 checks Data Base 106 to see if it is time to carry out peak shifting. If it is, controller 104 switches from commercial source 110 to built-in battery 103, in order to reduce peak loading]; and a power control section [Fig. 2, charging circuit 112 in conjunction with instructions from controller 104] configured to execute battery charge [Fig. 2, charging circuit 112] using the AC power even if a current time is equivalent to the AC power inhibit period set in the power management section [Fig. 3, steps S105 to S107 to S106 to S108, which says: charge the battery *even* if it is currently peak loading time and ac is supposed be inhibited; col. 9 lines 4-8] when the state determining section determines that there exists a plan [interpreted to mean a data table with state values, which is stored in Fig. 2, peak shift period and time Data Base 106] to use the electronic apparatus by the battery drive.

With respect to Claim 2, Hatori discloses the power management section [Fig. 2, power supply system 102] makes power management based on setting information [Fig. 2, stored in peak shift period and time Data Base 106] on which a charge inhibit period [Fig. 6, the period from 0 to 16 and 21 to 24 is the battery charge inhibit period] for inhibiting battery charge is set, and the power control section [Fig. 2, charging circuit 112 in conjunction with instructions from controller 104] executes battery charge using the AC power even if a current time is equivalent to the charge inhibit period set

in the power management section when the state determining section determines that there exists a plan to use the electronic apparatus by the battery drive [Fig. 3, steps S105 to S110 to S111 to S113, which says charge the battery even if the peak data indicates it is time to use battery power instead of ac power, i.e. do not inhibit ac].

With respect to Claim 3, Hatori discloses the state determining section [Fig. 2, controller 104; col. 7 lines 51-57; col. 8 lines 45-52] calculates a charge time spent for charge from the maximum battery capacity and the battery capacity at a current time [interpreted to mean a determination of how much time is required/available to charge the battery to maximum capacity. Controller 104 calculates this based on the peak values stored in Data Base 106; in Fig. 4 this is from 16 to 21 hours, so controller 104 will calculate and command a 5 hour charge period to charging circuit 112, then cease charging after that period], and determines whether or not there exists a start point of a plan to use the electronic apparatus by the battery drive until the charge time elapses from the current time [Interpreted as a requirement at a certain time to use the battery to power the electronic apparatus after the charging time has been completed. Fig. 6, this is the time period that the battery is supplying power from 13 to 16, labeled "power of battery", where the battery charge has been completed from the previous day between time period 16 to 21; col. 9 lines 58-60, lines 50-67 and col. 10 lines 1-3].

With respect to Claim 4, Hatori discloses a schedule management section [this is a program, per applicant's disclosure. Fig. 3 outlines the flowchart for this program] configured to register a period [interpreted as memory processing. Fig. 2 Data Base 6 is the memory that registers all the periods, including battery charging, ac inhibit, etc.

Additionally, controller 4 has its own memory for storing a program, col. 6 lines 27-29 when it fetches values from Data Base 6] having a plan to use the electronic apparatus by the battery drive to a schedule note together with the AC power inhibit period, wherein the state determining section [Fig. 2, controller 104; col. 7 lines 51-57; col. 8 lines 45-52] makes the determination based on the schedule note managed by the schedule management section [this claim was interpreted as referring to a program that interacts with a memory that has stored values which determines the ac power inhibit period. This is disclosed in col. 6 lines 25-41 and Fig. 3].

With respect to Claim 5, Hatori discloses the schedule management section [this is a program, per applicant's disclosure. Fig. 3 outlines the flowchart for this program] registers a charge request period [interpreted as memory processing. Fig. 2 Data Base 6 is the memory that registers all the periods, including battery charging, ac inhibit, etc. Additionally, controller 4 has its own memory for storing a program, col. 6 lines 27-29 when it fetches values from Data Base 6] for requesting battery charge to the schedule note, and the state determining section detects the charge request period registered to the schedule note managed by the schedule management section [this claim was interpreted as referring to a program that interacts with a memory that has stored values which determine the charge request period. This is disclosed in col. 6 lines 25-41; col. 7 lines 51-60; and Fig. 3].

With respect to Claim 6, Hatori discloses a power control method [col. 2 lines 11-15] applied to an electronic apparatus, comprising: making power management [Fig. 2, peak-shift period and time Data Base 106 contains load consumption information used

Art Unit: 2838

to make power management decisions; col. 3 lines 44-51; col. 6 lines 25-41] based on setting information on which at least an AC power inhibit period for inhibiting use of AC power is set [as shown in Fig. 6, the ac inhibit period is from 13 to 16, labeled "power of battery;" col. 2 lines 21-24; col. 3 lines 4-7; col. 9 lines 50-67]; determining whether there exists a plan to use the electronic apparatus by a battery drive when the electronic apparatus is connected with the AC power; and executing battery charge using the AC power even if a current time is equivalent to the AC power inhibit period set in the power management when the determination indicates that there exists a plan to use the electronic apparatus by the battery drive [see Claim 1 arguments].

With respect to Claim 7, Hatori discloses the power management [Fig. 2, power supply system 102] is made based on setting information [Fig. 2, stored in peak shift period and time Data Base 106] on which a charge inhibit period for inhibiting battery charge is set, and the battery charge is executed using the AC power even if a current time is equivalent to the charge inhibit period set in the power management when the determination indicates that there exists a plan to use the electronic apparatus by the battery drive [see Claim 2 arguments].

With respect to Claim 8, Hatori discloses the determination [Fig. 2, occurs in controller 104; col. 7 lines 51-57; col. 8 lines 45-52] includes calculating a charge time spent for charge from the maximum battery capacity and the battery capacity at a current time [interpreted to mean a determination of how much time is required/ available to charge the battery to maximum capacity. Controller 104 calculates this based on the peak values stored in Data Base 106; in Fig. 4 this is from 16 to 21 hours,

Art Unit: 2838

so controller 104 will calculate and command a 5 hour charge period to charging circuit 112, then cease charging after that period], and determining whether or not there exists a start point of a plan to use the electronic apparatus by the battery drive until the charge time elapses from the current time [see Claim 3 arguments].

With respect to Claim 9, Hatori discloses registering a period [interpreted as memory processing. Fig. 2 Data Base 6 is the memory that registers all the periods, including battery charging, ac inhibit, etc. Additionally, controller 4 has its own memory for storing a program, col. 6 lines 27-29 when it fetches values from Data Base 6] having a plan to use the electronic apparatus by the battery drive to a schedule note together with the AC power inhibit period, wherein the determination is made based on the schedule note [see Claim 4 arguments].

With respect to Claim 10, Hatori discloses registering a charge request period [interpreted as memory processing. Fig. 2 Data Base 6 is the memory that registers all the periods, including battery charging, ac inhibit, etc. Additionally, controller 4 has its own memory for storing a program, col. 6 lines 27-29 when it fetches values from Data Base 6] for requesting battery charge to the schedule note; and detecting the charge request period registered to the schedule note managed by the schedule management section [see Claim 5 arguments].

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art [U.S. 6380715] by Kubo is cited for the disclosure of a load leveling device including a battery, a power detector detecting power supplied from the power source, a power converter converting power charged to and discharged from the battery, and a power controller controlling power converted by the power controller.

Prior art [U.S. 6674265] by Yoshida is cited for the disclosure of an operation method for a secondary battery and a secondary battery device with load leveling features.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard V. Muralidar whose telephone number is 571-272-8933. The examiner can normally be reached on Monday to Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on Monday to Friday 7-4. The fax phone

KARL EASTHOM
SUPERVISORY PATENT EXAMINER

Art Unit: 2838

number for the organization where this application or proceeding is assigned is 571-272-1989.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RVM
5/25/2006


KARL EASTHOM
SUPERVISORY PATENT EXAMINER